IN THE CLAIMS:

Please **AMEND** claims 1-8 as follows.

1. (ONCE AMENDED) Device for receiving optical signals, comprising;

a light-guiding object into which [the] optical [signal] signals [to be] received may be coupled and which contains material having an electron configuration in [array] which the population density of two electronic states may be inverted by energetic excitation and which, in response to [stimulated emission] stimulation from received optical signals at an irradiation surface, emits light within the material by elastic dispersion, at an emission wavelength which corresponds to the wavelength of the optical signals [to be] received;[, and comprising]

an excitation unit inducing the inversion;[, as well as]

a detector [means] optically coupled to said light-guiding object [for the detection of] to detect the light [which can be produced by] having the emission [processes stimulated by the optical signals coupled into said light-guiding object] wavelength, [characterised in that]

said light-guiding object [consists of] comprises a material[, preferably a synthetic material,] which, in response to stimulation from [light radiation] received optical signals at an angle of $0° < \alpha \leq 90°$ relative to the irradiation surface, produces light [within the material by elastic dispersion .- which means that the wavelength of the diffused light corresponds to the wavelength of the irradiated light - which has] having a radiation component in the direction of a main propagation [sense] direction of said light-guiding object.

2. (ONCE AMENDED) Device according to Claim 1, characterised [in that] wherein said light-guiding object is a [fibre] fiber optical waveguide in which one share of said elastically diffused light propagates along the [fibre] fiber axis.

3. (TWICE AMENDED) Device according to Claim 1, characterised [in that] wherein said excitation unit is an optical pumped light source.

4. (TWICE AMENDED) Device according to Claim 2, characterised [in that] wherein an optical pumped light source and/or an element selective by wavelength is provided on at least one end of said [fibre] fiber optical waveguide, which element filters the pumped light from the optical signals.

5. (TWICE AMENDED) [Application of the] An optical transmission device comprising:

a first transmission part having [according to Claim 1 for optical signal transmission between two parts mobile relative to each other such that the optical signals emitted by] an emitter unit to emit optical signals: and

a second transmission part, mobile relative to the first transmission part, the second transmission part receiving the optical signals emitted by the emitter unit of the first transmission part, the second transmission part comprising:

a light-guiding object into which optical signals received may be coupled and which contains material having an electron configuration in which the population density of two electronic states may be inverted by energetic excitation and which, in response to stimulation from received optical signals at an irradiation surface, emits light within the material by elastic dispersion, at an emission wavelength which corresponds to the wavelength of the optical signals received;

an excitation unit inducing the inversion;

a detector optically coupled to said light-guiding object to detect the light having the emission wavelength,

said light-guiding object comprises a material which, in response to stimulation from received optical signals at an angle of $0° < \alpha \leq 90°$ relative to the irradiation surface, produces light having a radiation component in the direction of a main propagation direction of said light-guiding object [are coupled into said light-guiding object].

6. (ONCE AMENDED) [Application] An optical transmission device according to Claim 5, [characterised in that] wherein said light-guiding object is disposed on a stationary element and said optical emitter means, which emits said optical signals, is arranged on a rotating element such that during one full turn of said rotating element the emitted optical signals may permanently be coupled into said light-guiding object.